

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) An automatic gate ~~(1)~~ for permitting or preventing access by a person to a space or a transport vehicle, ~~in particular to a boarding lounge or an aeroplane,~~ comprising:

at least one vertical and elongated frame; ~~(2)~~,

at least one flap ~~(3)~~ which is mobile between a closed position in which ~~this~~ said at least one flap forms a barrier preventing ~~the~~ passage of a person along the frame, and an open position in which the at least one flap allows ~~this~~ the passage of a person along the frame;[[,]]

elements for reading an access ticket[[,]]; ~~in particular a ticket or an access card,~~

elements for controlling the displacement of the at least one flap ~~(3)~~ between the two abovementioned positions[[,]];

a lateral face of the frame ~~(2)~~ adjacent to the passage of the person comprising at least two superposed rows of detection cells ~~(C1 — C33)~~ cooperating with elements for preventing the opening of the flap ~~(3)~~ or for maintaining the flap closed when ~~these~~ said detection cells detect an abnormal situation,

one of the at least two superposed rows, called high or upper row, includes a plurality of said detection cells extending to ~~both~~ upstream and downstream sides of the at least one flap ~~(3)~~ above a line ~~(L)~~ situated at the mid-height of the frame, and the other row called middle row, being situated close to ~~this~~ said line,

wherein the detection cells in at least one of the upper and middle rows, situated downstream of the flap are suitable for detecting the passage of a person or of a child from downstream to upstream of the gate and for controlling the closing of the flap in order to prevent the person from turning back.

2. (original) Automatic gate according to claim 1, characterized in that it comprises moreover a third row, called low, of at least one cell situated below line (L).

3. (previously presented) Automatic gate according to claim 1 for permitting or preventing access by a person to a space or a transport vehicle, in particular to a boarding lounge or an aeroplane, comprising at least one vertical and elongated frame constituting a closed box, the gate comprising, at least one flap which is mobile between a closed position in which this flap forms a barrier preventing the passage of a person along the frame and an open position in which the flap allows this passage,

the end upstream of the frame relative to the person's direction of movement, comprising an input slot for an access ticket and the end downstream of the frame comprising an output slot for this ticket, the frame including elements for controlling the displacement of the flap between the two abovementioned positions, a route for displacement of the ticket between the input slot and the output slot for the ticket and elements for reading the ticket, characterized in that it comprises elements for preventing the person from accessing the output slot in order to remove the ticket, when the flap is in the position preventing the passage of the person, the distance between the flap and the output of the ticket is such that when the flap is in the position preventing the passage of a person, the latter cannot access the ticket output in order to remove the ticket.

4. (canceled)

5. (previously presented) Automatic gate according to claim 1, characterized in that the flap (3) is integral with the frame. (2).

6. (previously presented) Automatic gate according to claim 1, characterized in that the flap (3) is mounted in rotation about an approximately horizontal axis (X-X') extending in the direction of the length of the frame (2).

7. (previously presented) Automatic gate according to claim 1, characterized in that in the position preventing the passage of the person, the flap (3) has a part projecting out of the frame (2) having the shape of a sector of a circle, the circular edge (3a) of this sector being directed upwards.

8. (previously presented) Automatic gate according to claim 1, characterized in that the elements for controlling the displacement of the flap (3) are constituted by the reading of a valid ticket, allowing the displacement of the flap.

9. (previously presented) Automatic gate according to claim 1, wherein the cells comprise at least three groups of cells, each of these groups being assigned to different detection functions, a first group of said cells is assigned to a detection function ensuring the person's safety, a second group of said cells is assigned to a detection function in order to allow counting of the persons and a third group of said cells is assigned to a function of detection of non-authorized and/or fraudulent passages, at least one cell can belong simultaneously to two groups of said cells in order to perform different functions depending on the group of said cells to which the cell is assigned.

10. (canceled)

11. (canceled)

12. (previously presented) Automatic gate according to claim 1, wherein the cells in the upper row comprised between the frame entry end and the flap are suitable for detecting the entry of an adult and optionally of two or more persons in close proximity, the cells in the middle row comprised between the flap and the frame exit end are suitable for detecting the exit of a person after the opening of the flap, the cells in the lower row comprised between the frame entry end and the flap are suitable for detecting the entry of a child, the detection of an adult pulling a trolley is carried out by the combination of at least one covered cell in the upper row simultaneously with the covering of at least two covered cells in the lower row, separated by a non-covered cell, the cells situated close to the flap are assigned to the safety of the person vis-à-vis the ill-timed closing of the flap.

13-17. (canceled)

18. (previously presented) Automatic gate according to claim 1, wherein the frame contains a microcomputer suitable for receiving information from an external central control station, a

reader for the ticket introduced into the input slot of the frame, cells for detection and in order to control, via an automaton and a frequency variator, the operation of an electric motor for displacing the flap towards the opening or closing positions, the ticket has a magnetic strip, the frame comprising elements for reading this magnetic strip capable of reading the latter, whatever the position in which the ticket is introduced into the input.

19. (canceled)

20. (previously presented) Automatic gate according to claim 1, characterized in that the frame (2) also comprises close to the ticket output (5), a module (20) for cutting the ticket and detaching from the latter a coupon (21) intended to be taken by the person, and a store (50, 51) for recovering the remaining part of the ticket.

21. (original) Automatic gate according to claim 20, characterized in that the frame (2) comprises between the displacement route (6) of the ticket and the module (20) for cutting the ticket, a module (24) for turning the latter over.

22. (previously presented) Automatic gate according to claim 1, characterized in that the frame (2) contains a printer

for printing a second ticket different from the ticket read by the reading elements, this printer being controlled as a function of the data read by a reader and information received from an external control station (9).

23. (previously presented) Automatic gate according to claim 1, characterized in that the frame (2) comprises a second flap mounted in pivoting fashion inside the frame, close to the first flap (3), on an axis (X-X') shared with the latter, this flap projecting in the closed position, from the face of the frame (2) opposite to that from which the first flap (3) projects when it is in the closed position.

24. (previously presented) Automatic gate according to claim 1, characterized in that the gate comprises a second frame (2c) parallel to the first and delimiting the passage, the second frame comprises a second flap (3b) cooperating with the first flap, the opening of the first and second flaps being controlled by the reading of a valid ticket and the elements associated with the opening of the passage.

25. (previously presented) Automatic gate according to claim 1, characterized in that it comprises a sound or visual signal associated with each normal or abnormal passage situation.

26. (previously presented) Automatic gate according to claim 1, characterized in that it has a symmetrical architecture suitable for allowing passage either in one direction, or in the opposite direction.

27. (previously presented) Gate according to claim 1, characterized in that the high row comprises at least six cells (H1-H6) upstream of the flap.

28. (previously presented) Gate according to claim 1, characterized in that the high row comprises at least six cells (H7-H12) downstream of the flap.

29. (previously presented) Gate according to claim 1, characterized in that the middle row comprises at least six cells (M1-M6) upstream of the flap.

30. (previously presented) Gate according to claim 1, characterized in that the middle row comprises at least three cells (M7-M9) downstream of the flap.

31. (original) Gate according to claim 30, characterized in that the middle row comprises at least six cells (M7-M12) downstream of the flap.



32. (previously presented) Gate according to claim 29, characterized in that each cell of the middle row is arranged under a cell of the high row.

33. (previously presented) Gate according to claim 2, characterized in that the low row comprises a cell immediately downstream of the flap.

34. (previously presented) Gate according to claim 2, characterized in that the low row comprises two cells immediately upstream of the flap.

35. (previously presented) Gate according to claim 33, characterized in that each cell of the low row is arranged under a cell of the middle row.

36. (previously presented) Gate according to claim 1, characterized in that it comprises another flap arranged downstream of the flap, so that a high cell and/or a middle cell is located between the two flaps.

37. (currently amended) Method of controlling access for an automatic gate comprising at least one vertical and elongated frame, at least one flap which is mobile between a closed position in which the flap forms a barrier preventing

passage of a person along the frame and an open position in which the flap allows this passage, elements for reading an access ticket, elements for controlling displacement of the flap between the two positions, a lateral face of the frame adjacent to the passage of the person comprising at least two superposed rows of detection cells cooperating with elements for preventing opening of the flap or for maintaining the flap closed when these cells detect an abnormal situation, one of the rows called a high or upper row, comprising a plurality of the detection cells extending to both sides of the flap, above a line situated at the mid height of the frame and the other row called middle, being situated closest to the line, and a third row called low, of at least one cell situated below the line, method comprising steps of:

determining the presence of an adult by the simultaneous covering of a cell of the high row and a cell of the middle row superposed on the cell of the high row;

detecting the presence of a child by the covering of a cell of the middle row without a cell of the high row, superposed on the cell of the middle row being covered;

detecting a fraud by crawling when only one of the cells of the low row is covered, and detecting a fraud and/or an intrusion when a number of consecutive cells, in the same row covered simultaneously, is greater than a given number; and

detecting the passage of a person or of a child from downstream to upstream of the gate using the cells in the upper or middle rows that are situated downstream of the flap, and controlling the closing of the flap in order to prevent the person from turning back.

38-40. (canceled)

41. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized in that the entry of a person into the gate is determined when the most upstream middle cell (M1), and most upstream high cell (H1) in the case of an adult, is covered at the same time as the following two cells (M2, M3) (H2 and H3 respectively ) are uncovered and that then the cells of the following columns (M2 then M3 and H2 then H3 respectively) are successively covered and that finally those of the two first columns (M1 then M2 and H1 then H2 respectively) are successively uncovered.

42. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized in that the gate comprises an almost ready state, allowing the advanced reading of an access ticket.

43. (previously presented) Method of controlling access according to claim 42, characterized in that if the gate is not ready after a given time, and an access ticket has been

introduced via the ticket input slot, the ticket is returned by the ticket input slot.

44. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized in that if after a given time following an authorization of clearing the gate, the flap or flaps have not been cleared, the authorization is cancelled and the flaps closed.

45. (previously presented) Method of controlling access according to claim 44, characterized in that moreover if an access ticket has been introduced via a ticket input slot, the ticket is returned by the ticket input slot.

46. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized in that when an intrusion and/or when a fraud is detected, if the flap or flaps are open, they receive a command to close and/or a message is sent to a host system.

47. (previously presented) Method of controlling access for an automatic gate according to claim 46, characterized in that, following the intrusion, the flap or flaps are reopened only after a given time.

48. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized in that when an intrusion or a fraud is detected, it is signaled by a sound signal and/or a light signal which signals that access to the gate is forbidden.

49. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized in that it comprises an evacuation mode, which can be activated locally, in which the gate is held open in order to allow free circulation.

50. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized in that it comprises a normally open mode in which the flap is open and unenergized and closes in case of intrusion and/or fraud.

51. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized in that it comprises a normally closed mode in which the flap is closed and unenergized and opens in case of authorized passage.

52. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized

in that a zone of cells to both sides of the flap allows validation of their clearing by a person.

53. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized in that a zone of cells for counting is composed of three successive columns of cells, each column of cells being successively covered then successively uncovered before validation of a passage.

54. (previously presented) Method of controlling access for an automatic gate according to claim 37, characterized in that a delay time exists which is engaged after at least certain of the clearing stages of the gate, an anomaly being detected if a following clearing stage of the gate has not occurred during this delay time.

55. (original) Method of controlling access for a automatic gate according to claim 54, characterized in that a delay time exists for the entry of a person into the gate after an authorization has been given to him.

56. (original) Method of controlling access for an automatic gate according to claim 54, characterized in that a

delay time exists for clearing the flap or flaps by an authorized person after he has entered into the gate entry zone.

57. (original) Method of controlling access for an automatic gate according to claim 54, characterized in that a delay time exists for a person to leave the exit zone, after having cleared the flaps.

58. (previously presented) Automatic gate for permitting or preventing access by a person to a space or a transport vehicle, comprising:

at least one vertical and elongated frame constituting a closed box;

at least one flap which is mobile between a closed position in which said flap forms a barrier preventing the passage of a person along the frame and an open position in which the flap allows passage;

an end upstream of the frame relative to the person's direction of movement, comprising an input slot for an access ticket and another end downstream of the frame comprising an output slot for the ticket,

the frame including elements for controlling the displacement of the flap between the two abovementioned positions, a route for displacement of the ticket between the

input slot and the output slot for the ticket and elements for reading the ticket,

wherein the gate is structured and arranged for preventing the person from accessing the output slot in order to remove the ticket, when the flap is in the position preventing the passage of the person, by the distance between the flap and the output of the ticket being such that the person cannot access the ticket output in order to remove the ticket.

59. (new) The automatic gate according to claim 1, wherein the middle row is below the line situated at the mid-height of the frame.

60. (new) The automatic gate according to claim 1, wherein the detection cells in the upper and middle rows, situated downstream of the at least one flap detect the passage of a person or of a child from downstream to upstream of the gate and close the at least one flap in order to prevent the person from turning back.

61. (new) The method of controlling access for an automatic gate according to claim 37, comprising detecting the passage of a person or of a child from downstream to upstream of



the gate using the cells of the upper and middle rows that are situated downstream of the flap, and controlling the closing of the flap in order to prevent the person from turning back.